

PROJECT DESCRIPTION

THIS PROJECT INVOLVES THE MODIFICATION OF THE EXISTING TRAFFIC CONTROL SIGNAL AT THE INTERSECTION OF MD 212 (POWDER MILL RD) AND BELTSVILLE DRIVE IN PRINCE GEORGE'S COUNTY. MD 212 IS ASSUMED TO RUN IN AN EAST-WEST DIRECTION.

INTERSECTION OPERATION

THE INTERSECTION OPERATES IN A NEMA SIX-PHASE, FULL-TRAFFIC-ACTUATED MODE WITH A EXCLUSIVE-PERMISSIVE LEFT TURN PHASE FOR E.B. AND W.B. MD 212 AND SPLIT PHASE FOR THE SIDE STREET APPROACHES. ALTERNATE PEDESTRIAN PHASES EXISTS ACROSS THE WEST LEG OF MD 212 AND THE NORTH LEG OF BELTSVILLE DR. A FIREHOUSE PRE-EMPTION ALSO EXISTS.

WORK WILL CONSIST OF REPLACING THE STANDARD PEDESTRIAN SIGNALS WITH COUNTDOWN PEDESTRIAN SIGNALS AND INSTALLING NEW AUDIBLE-TACTILE PEDESTRIAN PUSHBUTTON STATIONS FOR THE EXISTING CROSSINGS. ADDITIONAL WORK WILL INCLUDE REPLACING THE EXISTING VEHICLE SIGNAL INDICATIONS WITH BLACK FACE L.E.D. INDICATIONS, AND CHANGING THE MD 212 AND BELTSVILLE ROAD LEFT TURN PHASING FROM EXCLUSIVE - PERMISSIVE, TO EXCLUSIVE.

CONTROLLER REQUIREMENTS

THE EXISTING FULL-TRAFFIC-ACTUATED, EIGHT PHASE CONTROLLERS HOUSED IN A NEMA "6" BASE MOUNTED CABINETS WILL BE USED.

APS NOTES

- FOR MD 212
- A. WHEN PEDESTRIAN LOCATES AND PRESSES PUSHBUTTON FOR AN EXTENDED TIME, THE PUSHBUTTON UNIT WILL BE "WAIT TO CROSS MD 212."
- B. WHEN WALK PHASE BEGINS, THE MESSAGE WILL BE A RAPID TICK, WHICH WILL LAST FOR THE DURATION OF THE WALK PHASE
- FOR BELTSVILLE DRIVE
- A. WHEN PEDESTRIAN LOCATES AND PRESSES PUSHBUTTON FOR AN EXTENDED TIME, THE PUSHBUTTON UNIT WILL BE "WAIT TO CROSS BELTSVILLE DRIVE."
- B. WHEN WALK PHASE BEGINS, THE MESSAGE WILL BE A RAPID TICK, WHICH WILL LAST FOR THE DURATION OF THE WALK PHASE

EQUIPMENT LIST "A"

QUANTITY	DESCRIPTION
121 SF	SHEET ALUMINUM SIGNS TO CONSIST OF THE FOLLOWING
9 EACH	W11-2 SIGN (36"x36") - GROUND MOUNT
6 EACH	M6-2 (21"x15") - GROUND MOUNT
4 EACH	R10-3(I) SIGN (8" X 15") - GROUND MOUNT
3 EACH	W13-4(I) SIGN (36" X 24") - GROUND MOUNT

EQUIPMENT LIST "B"

B. EQUIPMENT TO BE FURNISHED AND/OR INSTALLED BY CONTRACTOR. ALL EQUIPMENT SHALL HAVE CATALOG CUTS SUBMITTED TO THE OFFICE OF TRAFFIC AND SAFETY FOR APPROVAL PRIOR TO INSTALLATION.

ITEM NO.	QUANTITY	DESCRIPTION
1001	1 EA	MAINTENANCE OF TRAFFIC
2001	3 CY	CLASS II EXCAVATION
2002	4 CY	TEST PIT EXCAVATION
5002	350 LF	REMOVE EXISTING PAVEMENT MARKINGS
5004	600 LF	12 IN. WHITE HEAT APPLIED THERMOPLASTIC PAVEMENT MARKING
5005	40 LF	24 IN. WHITE HEAT APPLIED THERMOPLASTIC PAVEMENT MARKING
6001	130 LF	STANDARD TYPE A COMBINATION CURB AND GUTTER 12 IN. GUTTER PAN 8 IN. DEPTH
6002	360 SF	4 IN. CONCRETE SIDEWALK
8001	40 EA	12 IN. L.E.D. SIGNAL HEAD SECTION
8002	1 EA	2-WIRE CENTRAL CONTROL UNIT
8004	6 EA	8 IN. L.E.D. SIGNAL HEAD SECTION
8005	1 EA	ADJUST EXISTING HANDHOLE TO GRADE
8008	4 EA	AUDIBLE/TACTILE PEDESTRIAN PUSHBUTTON STATION
8009	4 EA	10' BREAKAWAY PEDESTAL POLE
8014	4 EA	L.E.D. 16 INCH COUNTDOWN PEDESTRIAN SIGNAL
8022	1 EA	REMOVE AND DISPOSE OF MATERIAL AND EQUIPMENT
8035	70 LF	3 IN. SCHEDULE 80 RIGID PVC CONDUIT - TRENCHED
8037	162 LF	WOOD SIGN SUPPORTS 4 IN. X 6 IN.
8038	100 SF	DETECTABLE WARNING SURFACE
8039	121 SF	INSTALL GROUND MOUNTED SIGN
8041	70 LF	NO. 6 AWG STRANDED BARE COPPER GROUND WIRE
8052	4 EA	CUT, CLEAN, GALVANIZE AND CAP PEDESTAL POLE
8054	730 LF	ELECTRICAL CABLE 2-CONDUCTOR (NO. 14 A.W.G.)
8056	670 LF	ELECTRICAL CABLE 5-CONDUCTOR (NO. 14 A.W.G.)
8057	510 LF	ELECTRICAL CABLE 7-CONDUCTOR (NO. 14 A.W.G.)

EQUIPMENT LIST "C"

C. EXISTING EQUIPMENT TO BE REMOVED BY THE CONTRACTOR AND DELIVERED TO THE STATE HIGHWAY ADMINISTRATION, 7491 CONNELLEY DRIVE, HANOVER, MARYLAND 21076. THE CONTRACTOR SHALL NOTIFY THE SHA AT (410) 787-7652 AT LEAST THREE DAYS IN ADVANCE OF DELIVERY.

ITEM NO.	QUANTITY	DESCRIPTION
NONE		

ALL SIGNAL EQUIPMENT TO BE REMOVED AND NOT RETURNED TO THE SHA SHALL BECOME THE PROPERTY OF THE CONTRACTOR.

CONTACT PERSONS FOR DISTRICT 3 ARE AS FOLLOWS:

MR. JEFF WENTZ ASSISTANT DISTRICT ENGINEER - TRAFFIC (301) 513-7318	MR. WAYNE MOWDY ASSISTANT DISTRICT ENGINEER - MAINTENANCE (301) 513-7304
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MR. AUGIE REBISH
ASSISTANT DISTRICT ENGINEER - UTILITIES
(301) 513-7350

CONTACTS FOR OFFICE OF TRAFFIC AND SAFETY

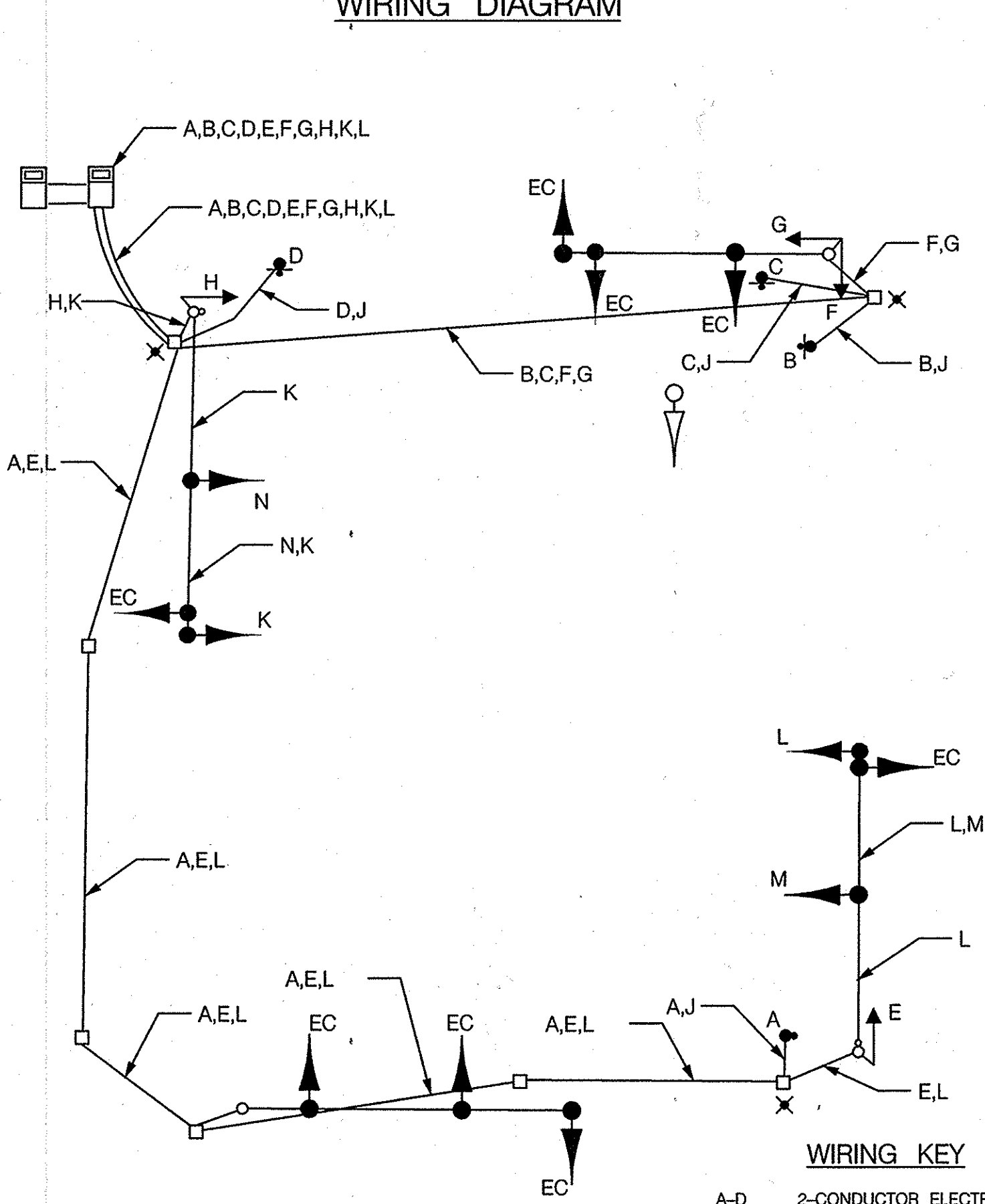
MR. RICHARD DAFF, SR. CHIEF, TRAFFIC OPERATIONS (410) 787-7630	MR. EUGENE BAILEY TEAM LEADER SIGN OPERATIONS (410) 787-7676
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MR. ROBERT SNYDER
ASSISTANT DIVISION CHIEF,
TRAFFIC OPERATIONS
(410) 787-7631

MS. DARLENE EIDE
SUPPLY OFFICE
SIGNAL SHOP WAREHOUSE
(410) 787-7668

MR. ED RODENHIZER
TEAM LEADER SIGNAL OPERATIONS
(410) 787-7652

WIRING DIAGRAM



WIRING KEY

A-D	2-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.)
E-H	5-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.)
J	STRANDED BARE COPPER GROUND
K-L	7-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.)
M-N	5-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.)
EC	WIRE (NO. 6 A.W.G.)
X	EXISTING CABLE GROUND ROD

PHASE CHART

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
PHASE 1 & 5	←G←	←G←	R	R	←G←	←G←	R	R	R	R	R	R	R	R	DW	DW	DW	DW
1 & 5 CHANGE	←G←	←G←	G	G	←R←	←R←	R	R	R	R	R	R	R	R	DW	DW	DW	DW
PHASE 1 & 6	←Y←	←Y←	Y	Y	←R←	←R←	R	R	R	R	R	R	R	R	DW	DW	DW	DW
1 & 6 CHANGE	←Y←	←Y←	Y	Y	←R←	←R←	R	R	R	R	R	R	R	R	DW	DW	DW	DW
PHASE 2 & 5	←R←	←R←	R	R	←G←	←G←	G	G	R	R	R	R	R	R	DW	DW	DW	DW
2 & 5 CHANGE	←R←	←R←	R	R	←Y←	←Y←	Y	Y	R	R	R	R	R	R	DW	DW	DW	DW
PHASE 2 & 6	←R←	←R←	G	G	←R←	←R←	G	G	R	R	R	R	R	R	DW	DW	DW	DW
2 & 6 CHANGE	←R←	←R←	Y	Y	←R←	←R←	Y	Y	R	R	R	R	R	R	DW	DW	DW	DW
PHASE 2 ALT+6	←R←	←R←	G	G	←R←	←R←	G	G	R	R	R	R	R	R	WK	WK	DW	DW
PED CLEAR	←R←	←R←	G	G	←R←	←R←	G	G	R	R	R	R	R	R	FL-DW/FL-DW	DW	DW	DW
2 ALT+6 CHANGE	←R←	←R←	Y	Y	←R←	←R←	Y	Y	R	R	R	R	R	R	DW	DW	DW	DW
PHASE 3	←R←	←R←	R	R	←R←	←R←	R	R	←G←	←G←	G	G	R	R	DW	DW	DW	DW
3 CHANGE	←R←	←R←	R	R	←R←	←R←	R	R	Y	Y	Y	Y	R	R	DW	DW	DW	DW
PHASE 3 ALT	←R←	←R←	R	R	←R←	←R←	R	R	R	R	R	←G←	←G←	G	DW	DW	WK	WK
PED CLEAR	←R←	←R←	R	R	←R←	←R←	R	R	←G←	←G←	G	G	R	R	DW	DW	FL-DW/FL-DW	FL-DW
3 ALT CHANGE	←R←	←R←	R	R	←R←	←R←	R	R	R	R	R	Y	Y	Y	DW	DW	DW	DW
PHASE 4	←R←	←R←	R	R	←R←	←R←	R	R	R	R	R	←G←	←G←	G	DW	DW	DW	DW
4 CHANGE	←R←	←R←	R	R	←R←	←R←	R	R	R	R	R	Y	Y	Y	DW	DW	DW	DW
FLASHING OPERATION	←FLR←	←FLR←	FLY	FLY	←FLR←	←FLR←	FLY	FLY	FLR	FLR	FLR	FLR	FLR	FLR	DARK	DARK	DARK	DARK

TOD NO: AT910-23
SHA NO: PG573A58/B58
MD212@BELTSVILLE DR

TRAFFIC **C**ONCEPTS, INC.
325 Gambrills Road
Suite E
Gambrills, MD 21054
(410) 923-7101
FAX (410) 923-6473
EMAIL TRAFFIC@TRAFFIC-CONCEPTS.COM

SHA STATE OF MARYLAND
DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION
OFFICE OF TRAFFIC & SAFETY
TRAFFIC ENGINEERING DESIGN DIVISION

GENERAL INFORMATION PLAN
MD 212 (POWDER MILL ROAD)
AND BELTSVILLE DRIVE

SCALE	NONE	DATE	10-17-07	CONTRACT NO.	AT9105185
DESIGNED BY	T. ZAYDEL	COUNTY	PRINCE GEORGE'S		
DRAWN BY	T. ZAYDEL	LOGMILE	16021207.7		
CHECKED BY	K. SCHMID	T.I.M.S. NO.	I- 103		
F.A.P. NO.	N/A	TOD NO.			
DRAWING NO.	TS 490 H GI	SHEET NO.	2	OF	2